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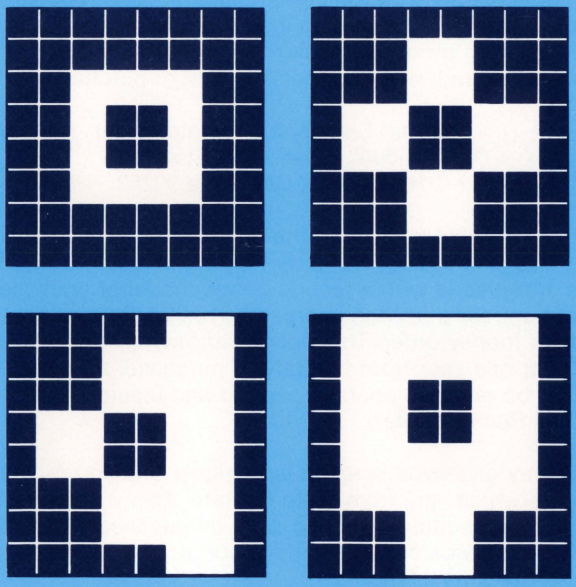
THE Children's Discovery System™



Activity Book

DISCOVERIES IN™ MEMORY & LOGIC Learning Fun Module

Use this learning fun module with
The Children's Discovery System™ Computer

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THE CHILDREN'S DISCOVERY SYSTEM™ LEARNING FUN MODULES

90 DAY LIMITED WARRANTY

Mattel Toys warrants to the original consumer purchaser of any of its Electronic Toys that the product will be free of defects in material or workmanship for 90 days from the date of purchase.

During the 90-day Warranty Period, the product will either be repaired or it will be replaced with a reconditioned model of equivalent quality (at our option) without charge to the purchaser, when returned either to the dealer with proof of the date of purchase, or when returned prepaid and insured, with proof of the date of purchase, to

Mattel Electronics Repair Center
5000 West 147th Street
Hawthorne, California 90250

Units returned without proof of the date of purchase, or units returned after the 90-Day Warranty Period has expired, will either be repaired or replaced with a reconditioned model of equivalent quality (at our option), for a service charge of $10.00.* Payment must be made by check or money order. This out-of-warranty service will only be available for one year from the date of purchase. All out-of-warranty units must be returned postage prepaid and insured to Mattel Electronics Repair Center.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. This warranty does not cover damage resulting from accident, unreasonable use, neglect, unauthorized service or other causes not arising out of defects in material or workmanship.

**Service charges subject to change without notice*

IF YOU HAVE ANY QUESTIONS OR PROBLEMS REGARDING THE USE OF, **THE CHILDREN'S DISCOVERY SYSTEM™** OR YOUR LEARNING FUN MODULES, CALL THIS TOLL-FREE NUMBER:

(800) 421-2887

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DEAR PARENTS:

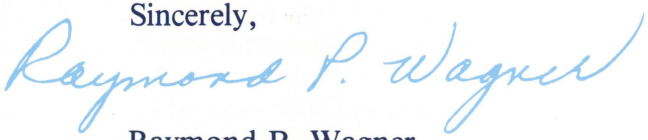
The DISCOVERIES IN™ MEMORY & LOGIC learning fun module has been designed to entertain your child while helping him or her master memory and reasoning skills. There are three activities to help develop recall, deductive reasoning and compound logic. Most activities can be played at different skill levels so that the challenge increases with your child's abilities.

Complete how-to instructions take your child step-by-step through each activity . . . starting with the basics and increasing to the more advanced levels. The many variations for each activity offer additional creativity.

There are many benefits from doing the Memory & Logic activities, and the most important benefit comes from stimulating thinking in a play situation. Children who are not used to deductive reasoning and compound logic will start at the beginning level. With your help and encouragement, and through his or her perseverance, these new concepts can be mastered. Then the activities will become more of a challenge. The variations for each activity — including mathematics and spelling — add even more fun. Your child can play alone or with others, helping to stimulate independent thinking, as well as strengthening cooperative and challenging play.

We suggest that you read through this Activity Book with your child. You will find that it is also fun to participate and actively help with the learning! Your child will gain confidence as he or she masters the activity . . . and will learn that trying hard brings satisfying results.

Sincerely,



Raymond P. Wagner
President, Mattel Toys

Get ready to become a memory whiz, a detective and puzzle-solver! In your new DISCOVERIES IN™ MEMORY & LOGIC learning fun module you can choose between three exciting games.

You will learn to remember symbols at a glance, search through clues and find a secret code, and you will recognize and repeat different shapes in a series. As you get better, advance a level and the game becomes even harder. To add to the fun, you can team up with a friend against other players, play against someone else, or just play alone.

DISCOVERIES IN™ MEMORY & LOGIC lets you put your mind into action. There are games which test your speed — others test your memory — and others challenge your ability to think through a problem. Don't worry! Easy instructions will help you learn all the games! And with a little practice, you will catch on quickly and have a lot of fun!

Now get ready to have hours of excitement . . . let's begin!

CURSOR THE GREAT™

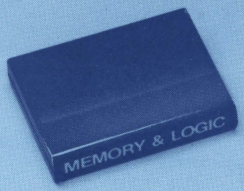
"Hi! Remember me? I'm Cursor the Great™ I'm the computer man who's made up of many little black computer squares. This time I'm going to be your computer assistant and point out special things to you in this Activity Book."

Let's get ready for lots of fun together.

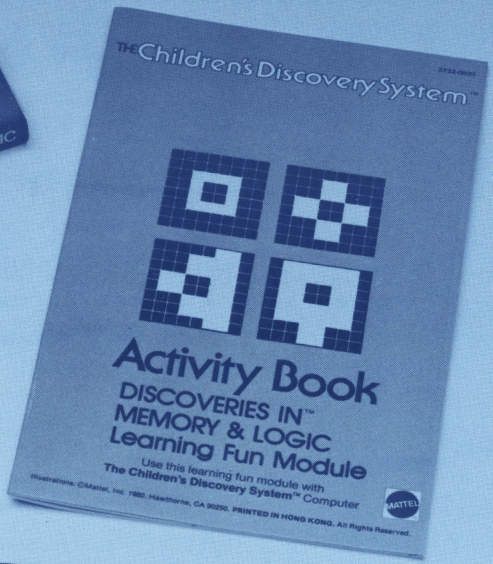
INSIDE THE CARTON YOU WILL FIND:

YOUR **DISCOVERIES IN™ MEMORY & LOGIC**
LEARNING FUN MODULE CONSISTS OF:

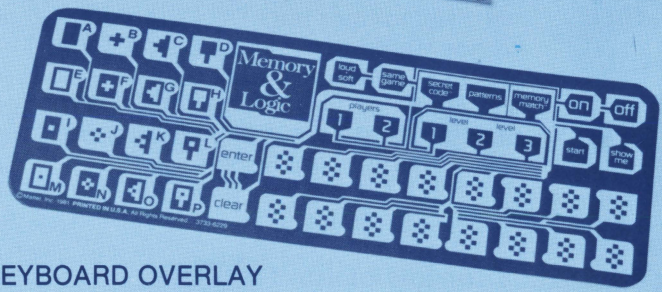
DISCOVERIES IN MEMORY & LOGIC CARTRIDGE
DISCOVERIES IN MEMORY & LOGIC ACTIVITY BOOK
DISCOVERIES IN MEMORY & LOGIC KEYBOARD OVERLAY



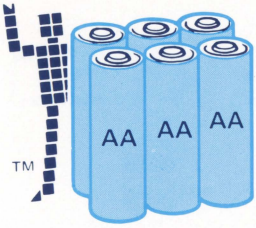
CARTRIDGE



ACTIVITY
BOOK



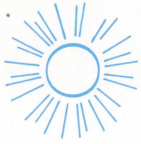
KEYBOARD OVERLAY



"REMEMBER . . . to keep fresh batteries in your computer. It uses six AA alkaline batteries. If you need to put in new batteries, check the front of your Computer Activity Book for directions. Anytime your computer starts showing a strange display or not doing what it's supposed to do, it probably needs fresh batteries."

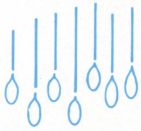
CARTRIDGES NEED GOOD CARE, TOO!

Your DISCOVERIES IN™ MEMORY & LOGIC cartridge has some very delicate electronic parts inside. Because of this, it needs some extra care.

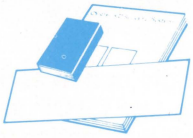


Don't leave it in direct sunlight or anywhere else where it will get very hot (120 °F or hotter).

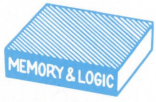
Don't let it get very cold either (35 °F or colder).



Don't get your cartridge wet or dirty.



When you're finished using a cartridge, TAKE IT OUT OF YOUR COMPUTER. ALWAYS TURN YOUR COMPUTER OFF BEFORE YOU REMOVE OR INSERT A CARTRIDGE.



Do not try to plug your cartridge into any other computer. Do not try to plug any other type of cartridge into YOUR computer.

Take care of your DISCOVERIES IN™ MEMORY & LOGIC cartridge and it will work for a long, long time.

LET'S GET STARTED

"Make sure your computer is turned OFF."

PUT THE CARTRIDGE INTO THE COMPUTER.

Hold the cartridge so that the label side (the side that says MEMORY & LOGIC) is facing up.

Now place the cartridge into the opening in front of your computer. Push it in as far as it will go.

When you want to take a cartridge out, TURN YOUR COMPUTER OFF, then just pull the cartridge straight out.

PUT THE OVERLAY OVER THE KEYBOARD

Your learning fun module comes with a thin, plastic sheet that fits over the computer keyboard. This is called an OVERLAY. It is printed on one side only.

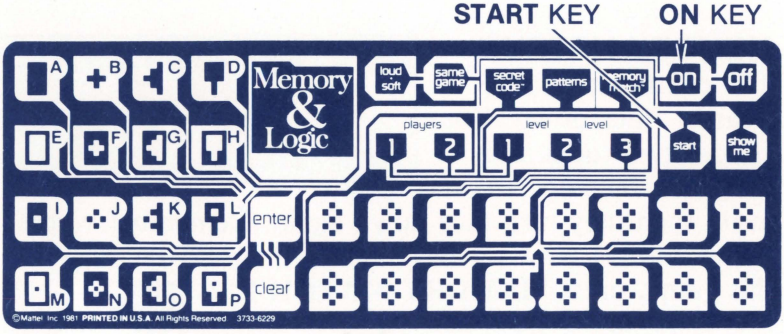
Find the LONG LIP that runs all the way around the keyboard, except for a top and bottom space in the middle of the keyboard. Start in this middle space and slip the LEFT side of the overlay UNDER the LEFT TOP and LEFT BOTTOM LIPS. Slide the overlay all the way under the LEFT END LIP, as far as it will go.

Now slip the RIGHT side of the overlay under the RIGHT TOP and RIGHT BOTTOM LIPS. You will have to make a loop in the overlay to do this. (See the picture.) BE CAREFUL NOT TO CREASE THE OVERLAY. Slide the right side of the overlay all the way under the RIGHT END LIP, as far as it will go.

Make sure the overlay is securely under the lip on all four sides of the keyboard. This overlay tells you which keys to use in the DISCOVERIES IN™ MEMORY & LOGIC cartridge. Each cartridge that you use will have its own overlay.

TURN YOUR COMPUTER ON.

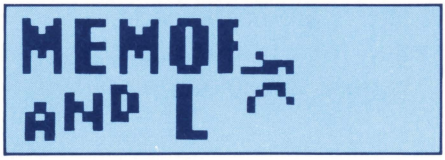
Press the ON key. The ON key is on the right side of the keyboard, at the top.



When your computer comes on, you will hear TWO MUSICAL NOTES and see the question **START?** on the screen.

PRESS THE START KEY:

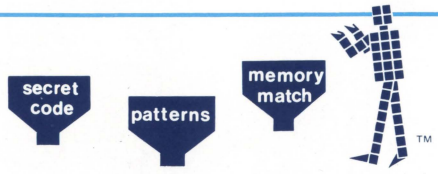
You will hear the STARTING TUNE and see **MEMORY & LOGIC** on the screen.



Cursor the Great™ will run across the screen, from right to left, erasing the title as he runs across.

When Cursor the Great™ runs off the screen, you will hear more MUSICAL NOTES and see the question **GAME?** This means, "Which of the three MEMORY & LOGIC games do you want to play?"

CHOOSE YOUR GAME



MEMORY & LOGIC offers three games to sharpen your ability to remember and think logically. Some games are trickier than others. But all of them will keep you thinking fast and shooting for accuracy. Which of these games do you want to play?

MEMORY MATCH™

The computer puts 16 "cards" face down. You choose two cards and they turn face up. Take a look, then they turn face down again. Remember where the cards are! Now try to match up pairs! **To choose this game,** press **MEMORY MATCH** key.

SECRET CODE™

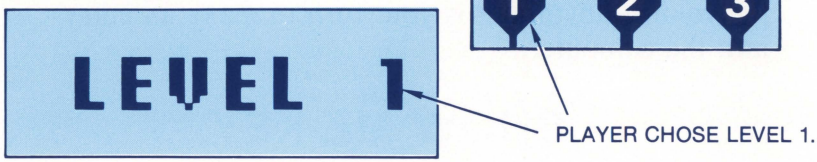
The computer comes up with a secret code. Your challenge is to follow clues and find out which letters are in the code, and then find the correct order of the letters. **To choose this game,** press **SECRET CODE** key.

PATTERNS

The computer puts a series of shapes on the screen. First you must identify a complete series. See where it begins to repeat again. Then you must complete the series where the computer left off. **To choose this game,** press **PATTERNS** key.

PICK YOUR LEVEL OF DIFFICULTY

When you choose Secret Code™ or Patterns (by pressing the game key on the overlay), you will see the question **LEVEL?** on the screen. There are three levels of difficulty: 1 is the easiest, 2 is medium, 3 is the hardest. Press Level key 1, 2 or 3. The level you chose shows on the screen. (We suggest starting at Level 1. When you master this, move on.)



HOW MANY WILL PLAY?

After you have chosen the Memory Match™ game (and after selecting the level for Patterns), the screen shows **1 OR 2 PLAYERS?** If you want to play alone, press the key. If you are challenging a friend, press the key. The number of players shows on the screen. After the screen is clear, the game appears and you are ready to play.

PLAY IT LOUD OR PLAY IT SOFT

Once you have pressed **START** you can adjust the volume. Pressing the **LOUD/SOFT** key makes the volume go back and forth between loud and soft. If you press this key when the volume is loud, it becomes softer. If the volume is already soft and you press this key, it gets louder. You can press this key and adjust the volume anytime it is your turn to make an entry into the computer.

SHOW ME KEY

When you just cannot figure out the answer to a game, press the **SHOW ME** key.

In Secret Code™, the computer shows you the four secret letters, then you see **GAME?** on the screen.

In Memory Match™, the cards turn face up, one at a time. Then the screen shows **GAME?**

In Patterns, the computer finishes the repeating sequence, then moves into the next round. (If you are already on the last round, the screen shows the score then **GAME?**)

SAME GAME KEY

When you have finished a game (and the score is shown), you can quickly start again by pressing the **SAME GAME** key. When you use this key, you play the same game that you just finished, at the same level and with the same number of players.

START ANOTHER GAME

If you have started a game and decide you want to change to another game, just press the key for the game you want to play.

When you finish a game, you see the score, then it changes to GAME? Now you can press the Same Game Key, choose another level of the same game, or choose another game.

"Remember whenever you press a key, the computer should answer with a short beep. This beep tells you that the computer knows you have pressed this key. Whenever it is your turn to press a key, the computer will let you know with a 2-NOTE PROMPT (2 rising musical notes)."

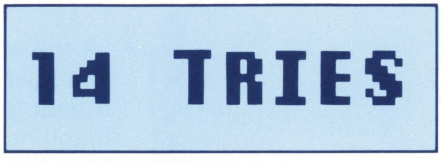
KEEPING SCORE

After you finish a game, you will see the score on the screen.

In Memory Match™, if you play alone, the screen shows how many tries it took to match up all the cards. If there are two players, the screen shows each player's score. There are 5 points for every matched pair. And a pair of wild cards counts 30 points, and an automatic win!

PLAYER 2 BEAT PLAYER 1.

In Secret Code™, the winner is the player who identifies the secret code. The screen shows how many total tries it took to identify the secret code.



IT TOOK 14 TRIES TO IDENTIFY THE SECRET CODE.

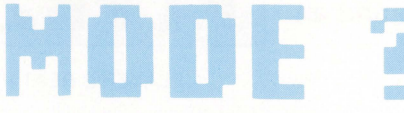
In Patterns, 1-player game, there are two tries for each symbol. You get 3 points for answering correctly on the first try, and 1 point for a correct answer on the second try. In a 2-player game, each player gets only one try per turn, and 3 points for each correct answer.

HIGHEST POSSIBLE SCORE IS 96...
SO YOU DID REALLY WELL

GAME OVER
AUTOMATIC SHUT-OFF

When you are finished playing any game in your DISCOVERIES IN™ MEMORY & LOGIC cartridge, turn your computer OFF. (Press the OFF key.) Then pull your cartridge out of the cartridge slot and put it away.

If you forget to turn your computer off when you finish playing, the Secret Code™ and Memory Match™ games wait about 5 minutes, then play "taps" and shut off. If you leave in the middle of Patterns, the game continues, with a beep every minute until the game finishes. Then after about 5 minutes, the game plays "taps" and shuts off.



"If the screen shows MODE? you have forgotten to put in the cartridge. Turn the machine off, insert cartridge, then begin again."

MEMORY MATCH™

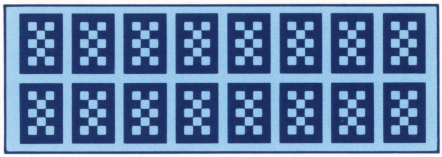
This game tests your memory powers! One or two can play. The object is to turn over two cards, remember where they are, then match up pairs! Have fun!

GETTING STARTED

1. Turn game on, press Start, then you see GAME? Choose this game by pressing the memory match key. The game title appears on the screen.

2. The screen then changes to show the question **1 OR 2 PLAYERS?** Begin by playing alone. To do this, press 1 on the PLAYERS? keys.

3. When the game starts, you will hear the computer "shuffling" the cards then dealing them out one at a time. You will see this:



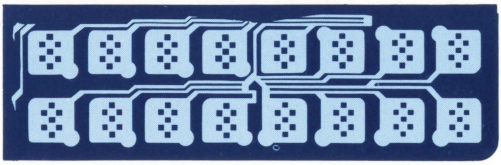
ALL SIXTEEN CARDS ARE TURNED FACE DOWN.

ABOUT THE CARDS

There are 16 "cards" in our deck, with one symbol (special shape) on the face of each. Each symbol is on the face of two cards, so you can make 8 pairs.

THESE ARE THE 8 SYMBOLS.

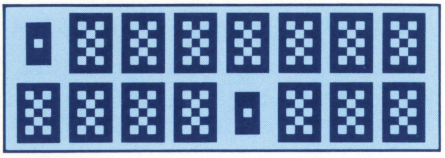
The computer deals the cards face down on the screen, eight on the top row and eight on the bottom. You will use the following keys to turn over the cards:



1 PLAYER MEMORY MATCH™

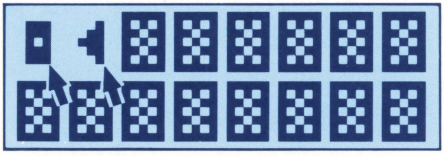
The key to this game is remembering where the cards are so you can match up pairs in as few tries as possible. Let's begin!

Turn Over Two Cards



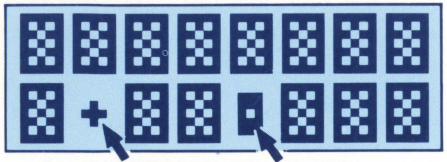
To turn over two cards, press any two card keys on the overlay. The computer then turns these cards face up on the screen for a few seconds. If you turn up a pair, there are three short beeps, and the cards are removed from the screen.

If you turned up two different cards, they stay face up for a few seconds, then turn face down again. Remember where they are. For example:



ON THE FIRST TRY, THESE 2 CARDS WERE TURNED UP.

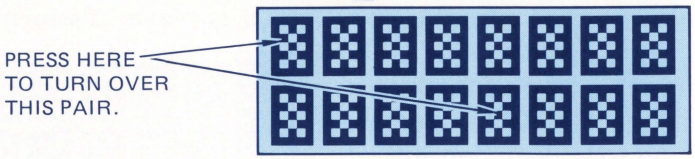
Turn over two more cards, looking for two the same. For example:



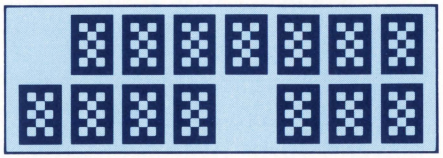
ON THE SECOND TRY, THESE 2 CARDS WERE TURNED UP..

Match Up The Cards

When you know where a match pair is, turn over those cards. In the example above, the ▪ and ◂ were turned over on the first try; and the ✚ and ▪ on the second try. Now match the ▪ pair up. For example:



You will hear three short beeps and the cards disappear from the screen.



MATCHED PAIR LEAVES THE SCREEN.

"If you try to turn over a card that has already been removed from the screen, you will hear two notes. Try another card!"

You Matched All The Pairs

Continue turning up two cards at a time, remembering where each symbol is. The game is over when all the cards are matched. After you see how many tries it took to match all the cards, GAME? comes on the screen. Press the Same Game key, choose another level of Memory Match, or choose another game.

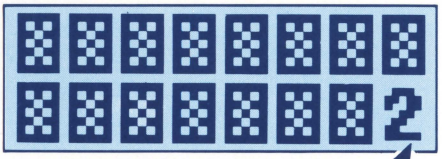
IT TOOK 16 TRIES TO CLEAR THE BOARD.

Show Me Key

If you cannot match up all the cards, or you just want to end the game, press the SHOW ME key. The computer turns over the remaining cards and you can see where the pairs were. You won't see a score!

2 PLAYER MEMORY MATCH™

The object is the same as the 1-player game. But when two are playing, you must first decide who is player number 1 and who will be player number 2. When it is player 1's turn, there is a 1 on top of the lower right corner card. When it is player 2's turn, there is a 2 on this card. Even though you cannot see it, there is a card under that number. You can turn it over whenever it is your turn.



IT IS PLAYER 2's TURN. THERE IS A CARD UNDER THE NUMBER.

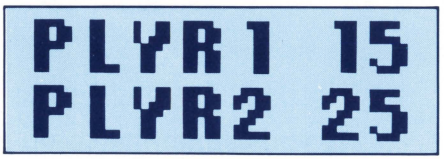
Players take turns selecting two cards at a time. First, player 1 turns over two cards. Then player 2 turns over two cards. As long as a player matches up pairs, it continues to be his turn. When a player doesn't make a match, it is the other player's turn, and the number in the right corner changes.

When the card under the player number is matched, the number stays on the screen, but there is no card underneath anymore.

"When you play several games in a row, press the **SAME GAME** key. The player who took the last turn (in the last game) starts the new game."

SCORING

In a 2-player game, you get 5 points for every matched pair. If you make a pair with wild cards, you get 30 points and the game ends. The screen displays the scores.

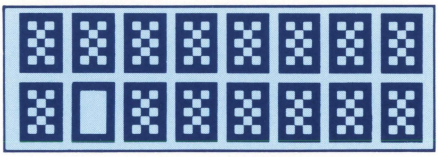


PLAYER 2 WON THIS GAME!

Wild Cards

Once in a while, in a 2-player game, the computer will deal out two "wild cards." You can use a wild card to match up with any other card and make a pair. Or you can wait to locate the second wild card for a 30 point wild card match, and an automatic win!

When you turn up a wild card, for the first time in a turn, you will hear a tune and it quickly turns back down.



WILD CARD TURNED UP.

You only get a peek at the wild card when you first turn it over. So if you want to use it to match up with another card, just press the same card key again. When you turn up a wild card a second time on the same turn, it makes a match with the other card turned over. When wild cards are in the deck, the game ends after 7 pairs are taken from the board (even if there is a pair left on the board).

GAME PLANS FOR 1 OR MORE PLAYERS

TICK TOCK (1 or more players/easy)

As soon as you start the game, begin timing yourself to see how long it takes to match all the pairs! Try to get faster and faster each game. Try to beat your opponent's time!

TAKE ORDERS (1 or more players/medium)

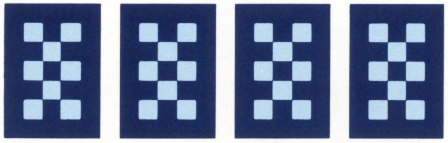
Put the pairs of symbols in order, from 1 to 8. For example, 1 = , 2 = , 3 = , 4 = , 5 = , 6 = , 7 = , 8 = . Now match up these pairs starting with symbol 1 and continue in order, ending with symbol 8.

TO THE POINT (1 or more players/medium)

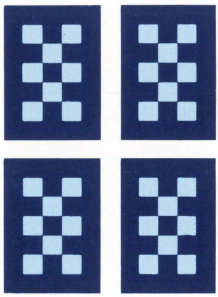
You can also give the symbols different values. For example = 8 points, = 7 points, etc. When you match a pair, write down the points on a separate piece of paper. Total all the points at the end of the game. Player with the most points wins!

TURN UP (1 or more players/medium)

Here's another memory teaser you can play. Turn over 2 cards, then another 2. Now from memory, all players write down the symbols in the order they were turned over. Turn over the cards again to check. For example, turn over cards in a row such as



Or turn over cards in blocks such as →



As you get better, turn over more cards. Player who remembers the most cards wins!

WACKY MATCH (1 or more players/hard)

First decide which two different cards will make a pair. For example, ▛ and ▟ could make a pair. Use the computer to turn over the cards. Since the computer won't remove unmatched pairs from the screen, mark off your wacky pairs on a separate piece of paper. Player with the most wacky matched pairs wins!

GAME PLANS FOR 2 OR MORE PLAYERS

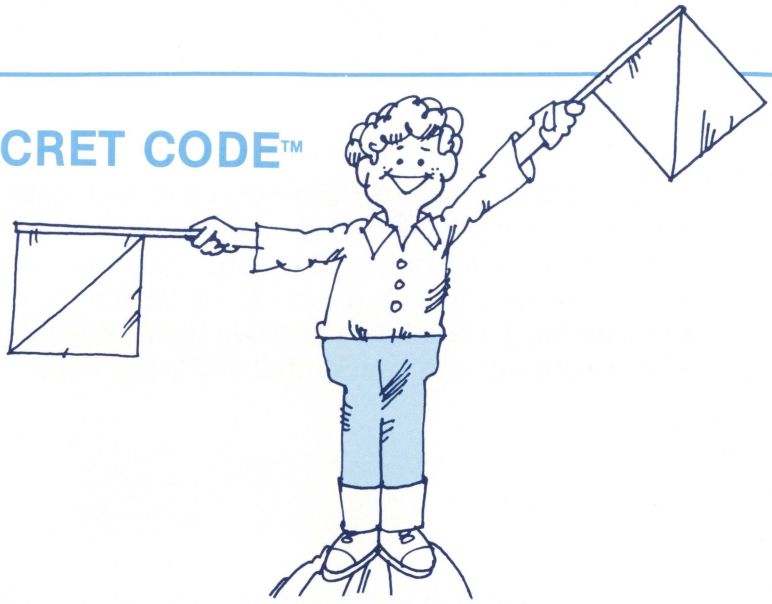
LOOK AWAY (2 players/easy)

Each player must look away when opponent is turning over his cards. First one player turns over 2 cards. Then the other player turns over 2. Now you cannot get any clues from your opponent's tries, to help you match pairs!

TEAM PLAY (4 players/medium)

Two players make a team and work together to match the cards! One player turns over and remembers the top row of cards. The other player turns over and remembers the bottom row.

SECRET CODE™



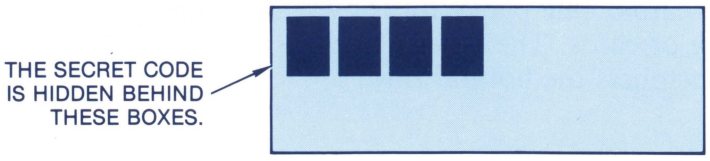
This is a game that develops your skills as a master detective. One or two can play. And it can be easy, medium or hard. It's up to you! The object of the game is to find out which four letters are in the secret code, then to find their correct order.

GETTING STARTED

1. Turn the game on, press Start, then you see GAME? Choose this game by pressing the secret code key. The game title appears on the screen.

2. The game title then changes to show the question **LEVEL?** Let's start with Level 1. To do this, press 1 on the LEVEL keys.

3. When the game starts, you will see this:



ABOUT THE SECRET CODE

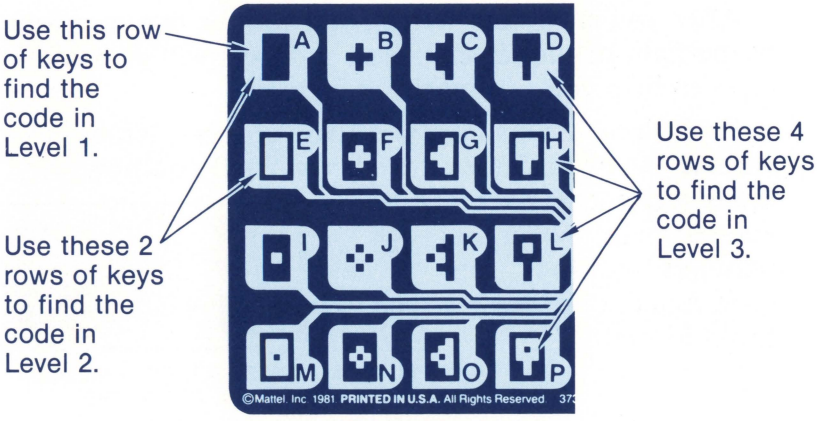
The secret code is always four letters long. The code could be made up of just one letter, such as A A A A. Or it could use two, three or four letters, such as A A C C, A C C D, or D C A B, etc. The letters can also be arranged in any combination. For example, if the letters are A B B C, they could be arranged as B B A C, B A C B, C A B B, etc. The act of changing the order of these four letters is called a permutation by mathematicians.

In Level 1, the computer chooses the secret code from the letters A B C D.

In Level 2, the computer chooses from letters A - H.

And in Level 3, the computer selects the secret code from letters A - P.

You will use the following keys to identify the secret code:

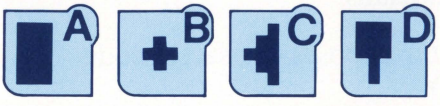


1-PLAYER GAME, LEVEL 1

Let's start playing Secret Code™ at Level 1, so you can get the feel for this game. Remember, the computer will select a secret 4-letter code using letters A B C D. This code is hidden behind the boxes. Now you must try to identify the secret code.

Search For The Secret Letters

To make your first guess at finding the secret code, press any of the first four letters on your overlay,



then press the enter key.

Always enter a total of four letters. Example: A A B B or C B B D or A D C B, and so on. Important: If you want to change the letters you are guessing, press the **CLEAR** key before pressing **ENTER.** Your guess is erased and you can now press any other four letters and **ENTER.** If you press a letter other than A B C D, the computer makes a short beep to let you know you pressed the wrong letter.

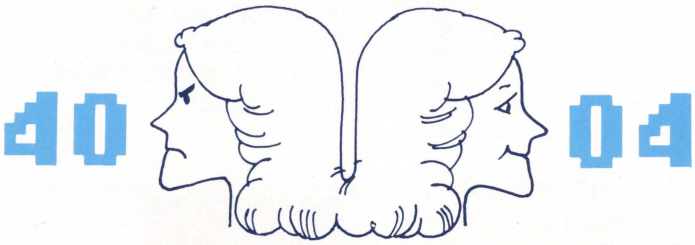
The Numbers Give You Clues

After you enter four letters, you will see two numbers at the right of the screen. These numbers will give you clues to help you to find the secret code.

First, the numbers help you find the secret letters. Adding the two numbers together will tell you how many secret letters you guessed right. When the numbers total four, you have found all of the secret letters.

PLAYER GUESSED A B C D, AND ALL OF THESE LETTERS ARE IN THE SECRET CODE (3 + 1 = 4)

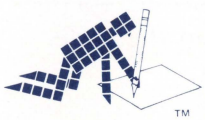
Secondly, the numbers help you find the correct order for the secret code. The left number tells you how many of the letters you guessed are in the code, but are in the **wrong** place. The right number tells you how many of the letters you guessed are in the code and are in the **right** place. When the numbers show: 0 4, you have found all four letters and they are in the right order.



For example, in the guess shown on the previous page, the numbers (3 1) tell you that three letters are in the wrong place, and one letter is in the right place.

Keep Guessing

Continue by entering letters (four at a time), until you find the secret code! Be sure to enter a different combination of letters each time.



"Don't forget, you only have about 5 minutes in between guesses or the computer will automatically shut off. So write down your guesses and the number clues on a separate sheet of paper, so you will know what you have already tried."

TIP: When you are new at the game, you might find it easier to first find the secret letters, then find the correct order. When you get to be an expert code breaker, you will look for the letters and the correct order at the same time. This will help you make fewer tries before identifying the secret code.

Time For A Trial Run

Let's try an example to see how a real game works. Begin by pretending that the secret code is **A D D C**. Each step of this example helps you get closer to finding the code. Follow along and see!

Find the Letters:

"Remember, you have found all four letters when the numbers added together equal 4."

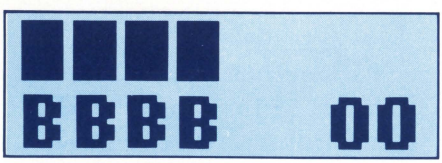
1. For the first guess, you might press the A B C D keys on the overlay and **ENTER**. The display would show:

The numbers tell you that three of these letters are in the secret code (2 + 1 = 3). So, one of the four is not in the code. Let's find out which one!

2. Guess A A A A and look at the numbers for clues:

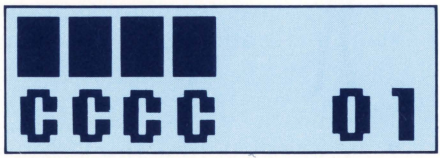
The numbers tell you there is only one A in the code (0 + 1 = 1).

3. Now see how many Bs are in the code by guessing B B B B:



The two zeros tell you there are no Bs in the secret code. This is very helpful.

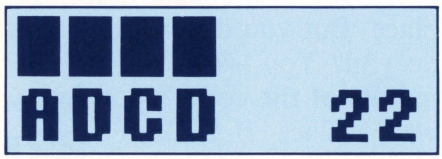
4. Next try C C C C to see what the numbers tell you:



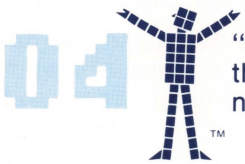
There is only one C in the code (0 + 1 = 1).

5. Now it's time to become a detective. First you know that the secret code has 4 letters. You have found from the number clues that the secret code has one A, no Bs and one C. What can you deduce (figure out) from these facts? Right! There must be two Ds.

Try A D C D: You know all four letters (2 + 2 = 4). Now you must find the correct order.



Find the correct order:



"Remember, you have found the correct order when the numbers show 0 4."

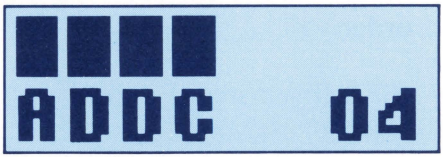
6. Begin your search for the correct order by trying a new combination of letters. Enter D A C D.

The left number tells you that all 4 letters are in the wrong place, and the right number tells you there are none in the right place.

"Remember, you want to find the secret code in as few tries as possible. So you have to pay close attention to the number clues."

7. You know that the letters are in the wrong place in step 6, but what else can be deduced from this fact? If the Ds are wrong in the end positions, they must belong in the center. If they go in the center, then A & C must belong on the ends. So the secret code is either A D D C or C D D A.

Can you get any other information from the guesses already tried? Sure! Look at step 5. You know that two letters are in the right place, and two are in the wrong place. But you don't know which is right or wrong. Or do you? You learned in step 6 that the Ds are in the middle of the code. Therefore C D are the two in the wrong place. If C D are in the wrong place, then you know that A D are in the right place. So, the code must be A D D C:



"Each game will be different, so you have to be on your toes to read the clues. Sometimes if you are having a hard time finding facts and deducing facts, guess another combination and the new number clues might help you out."

You Found The Secret Code

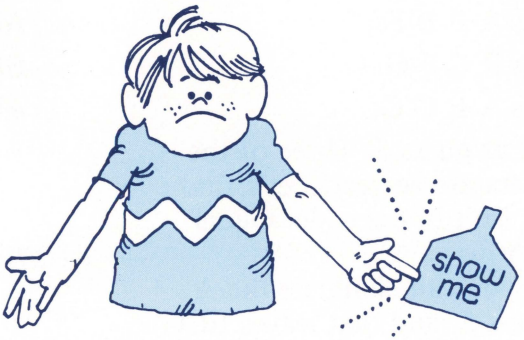
When you find the secret code, you will hear a victory tune. The screen shows how many tries you took to identify the code. Then it changes to the question **GAME?** Press Same Game for the exact same level, choose another level of Secret Code, or choose another game.

IT TOOK 5 TRIES TO IDENTIFY THE SECRET CODE

"When you begin playing Secret Code, don't be discouraged if it takes a lot of tries to identify the secret code. As you get better and better, you will find the code in less and less tries."

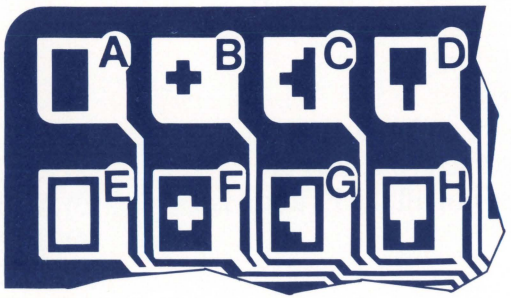
Show Me Key

If you cannot figure out the correct code, just press the SHOW ME key. The blank boxes disappear, and the secret code is shown. You won't see a score!



1 PLAYER GAME, LEVEL 2

This game is played exactly like Level 1. But in Level 2, there are more possibilities for code combinations. The computer can use letters A - H to make up the 4-letter secret code. This means you use all these letter keys in your search for the secret code.



Let's Run Through A Level 2 Game

The key behind logic is looking for facts, deducing (figuring out) information and eliminating (taking out) possibilities. Pay close attention to the number clues and follow along in this example of a Level 2 game.

Begin by making 5 guesses, then look at the number clues.

1. Guess A B C D:	(1) **ABCD 20**
2. Guess E F G H:	(2) **EFGH 20**
3. Guess A E B F:	(3) **AEBF 20**
4. Guess B C F G:	(4) **BCFG 21**
5. Guess A E C G:	(5) **AECG 30**
6. Look at guess 5. Three of the four letters are correct. Let's find one that isn't in the code. Guess A A A A:	(6) **AAAA 00**
7. Now you can eliminate the A from guess 5, and that leaves ECG in the code. Eliminate all other As in the previous guesses.	(1) **ABCD 20** (2) **EFGH 20** (3) **AEBF 20** (4) **BCFG 21** (5) **AECG 30**
Now use the fact that ECG are correct to find out other facts. Look at guess 2. The numbers tell you there are only 2 correct letters in that guess. You know that the E & G are correct, so F & H are wrong. Cross out all the Fs and Hs.	(1) **ABCD 20** (2) **EFGH 20** (3) **AEBF 20** (4) **BCFG 21** (5) **AECG 30**

Now look at guess 3. The A is eliminated, and the F is gone. So that leaves E (which we know is one of the correct letters) and B (which we now know is the remaining letter). By eliminating letters, you found the code letters, ECGB.

Find the correct order:

8. Before you make another guess, be sure you have looked for all the information there already is. Sometimes it helps to see what is **not possible**, to help find out what **is possible**. Look at the guesses and begin to eliminate letters:

The first guess tells you that the two code letters B & C are not in the right place. So cross these positions out:

The second guess tells you that no code letters are in the right place. So cross out E & G in these positions:

There are no code letters in the correct place in the third guess, so cross out E & B in these positions:

In the fourth guess one code letter is in the right place, and you don't know which one. So you cannot cross anything out.

In the fifth guess, the E C & G are all in the wrong position. Cross these out:

When you look down the third column, you see that all the letters but E are crossed off. Therefore E is the only letter possible in that position. Make a guess and get more information:

LETTERS			
1st ▽	2nd ▽	3rd ▽	4th ▽
	~~B~~	~~C~~	
~~E~~		~~G~~	
	~~E~~	~~B~~	
	~~E~~	~~C~~	~~G~~

(7) GCEB 31

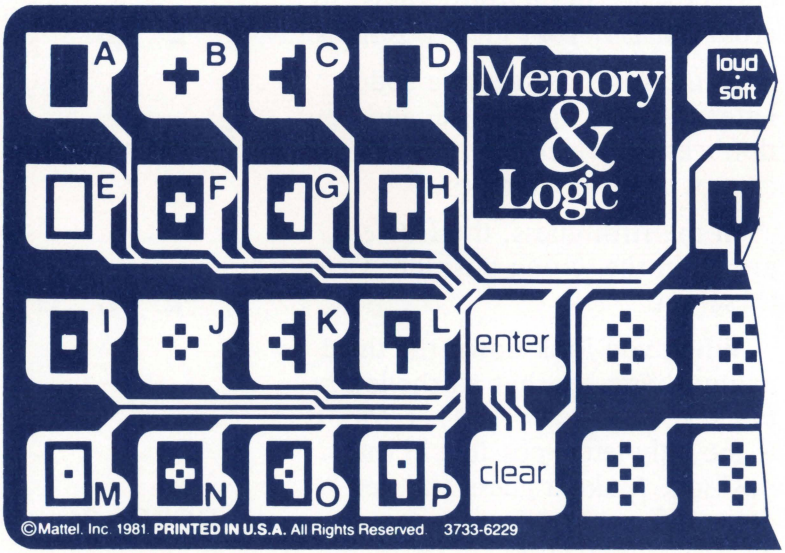
	LETTERS			
	1st	2nd	3rd	4th
	▽	▽	▽	▽
9. Since you know that the E is in the correct position, the other three letters in guess 7 are in the wrong place. Cross these out:	~~G~~	~~C~~		~~B~~

Now look down the second column. The second letter is not B, E or C. Therefore it must be G. The code is either C G E B or B G E C.

Since B is not possible in the fourth position, through the process of elimination, you have found that the secret code is B G E C: **(8) BGEC 04**

1 PLAYER GAME, LEVEL 3

This game is also played like the Level 1 game. But at Level 3, you will have a super challenge. The computer now can use letters A - P to make up the secret code. You use all these letter keys to find the secret code.



Let's Run Through A Level 3 Game

Now you will have an even greater challenge. Look carefully at the number clues. Look for all the facts you can deduce. Here is an example of a Level 3 game.

Begin by making 8 entries then look at the numbers:

(1)	A B C D	1 0
(2)	E F G H	1 0
(3)	I J K L	0 1
(4)	M N O P	1 0
(5)	A E I M	0 0
(6)	B F J N	2 1
(7)	C G K O	0 1
(8)	D H L P	0 0

10. First look at the guesses that do not have any code letters in them, guesses 5 & 8. Eliminate letters A E I M D H L P.

(1)	~~A~~ B C ~~D~~	1 0
(2)	~~E~~ F G ~~H~~	1 0
(3)	~~I~~ J K ~~L~~	0 1
(4)	~~M~~ N O P	1 0
(5)	~~A~~ ~~E~~ ~~I~~ ~~M~~	0 0
(6)	B F J N	2 1
(7)	C G K O	0 1
(8)	~~D~~ ~~H~~ ~~L~~ ~~P~~	0 0

Your sixth guess includes three of the code letters, so find out which one is not in the code. Guess B B B B:

(9)	B B B B	0 0

11. After eliminating the B in the first guess, the only letter left is the C. And after eliminating the B in the sixth guess, that leaves the F J & N. So the secret letters are C F J N.

Before you make another guess, see if you can figure out the answer from the facts you already have.

Look at each guess and see which letters in each position can be eliminated.

1st 2nd 3rd 4th
▽ ▽ ▽ ▽

The number clues say the C is in the wrong position in the first guess.

~~C~~

The number clues say the F is in the wrong position in the second guess.

~~F~~

J is the only code letter in the third guess, and the number clue says it is in the correct place.

(J)

N is wrong in this position in the fourth guess.

~~N~~

One of the three is in the right position in the sixth guess. We know that the J is in the wrong place because it is the second letter. We also know that the F is where the J should be. So the correct letter must be N...

~~F~~ ~~J~~ (N)

C is the only code letter in the seventh guess, therefore it is in the right place.

(C)

From this process of elimination, you know that the F must be in the third position. Therefore, the secred code is C J F N.

(10) **C J F N 0 4**

2 PLAYER SECRET CODE™

The 2-player version of this game is played just like the 1-player game. You can play it at Level 1, 2 or 3. The only difference is that players take turns. First one player enters 4 letters. Then the next player enters 4 letters . . . and so on until someone finds the secret code. Whoever finds the secret code wins! The computer shows the combined number of tries for both players.

GAME PLANS FOR 1 OR MORE PLAYERS

TIME BREAKER (1 or more players/medium)

Time yourself to see how long it takes to break the secret code. Try to beat your own speed and your opponent's!

RECALL (1 or more players/medium)

This is a great way to test your memory and alertness. After you have finished playing a game, cover up all the guesses. Now uncover one line and quickly look at the letters and numbers, then look away. See if you can repeat the line you just saw from memory. Check to see if you are right or wrong. Try another line!

BEAT THE LIMIT (1 or more players/medium)

Try to find the secret code within a certain number of tries. For example, limit yourself to 6 tries for Level 1, 8 tries for Level 2, and 10 tries for Level 3. How close can you come to the limits? If you get the code on or before the limit of tries, subtract 1 try from your score. If you go over the limit, add 1 try to your score.

CODE WORDS (1 or more players/hard)

When the game ends, give yourself one minute to spell as many words as you can using the letters from the secret code. For each word you spell, subtract 1 try from your score!

GAME PLANS FOR 2 OR MORE PLAYERS

ADDITIONAL TRY (2 or more players/medium)

Write down the number clues as you play each game. For example → Game 1

02
13
22
40
21
04

After 5 games, add together the number clues for each game. You will have 5 totals. For example → Game 1 total = **102**

Have the other player check your totals. If a game total is added correctly, subtract 10 points from it. If a game total is added incorrectly, add 10 points to it. You will have 5 new scores. → New Score = **92**

92 (Game 1)
+ Game 2
+ Game 3
+ Game 4
+ Game 5

Now add the 5 new scores together. The player with the lowest overall score wins! → Overall Score =

RACERS (2 players/medium)

In this version of Secret Code™, keep your guesses a secret from your opponent. First one player makes a guess, writes down the letters and the numbers, then presses CLEAR. Then the other player does the same.

Do not look at each other's list of guesses. The first to break the code . . . wins!

CALLOUT (3 or more players/medium)

For this game choose a Captain. The Captain is the only player that makes guesses. All other players write down the guesses and clue numbers, and try to figure out the secret code. When you think you know the secret code, call out the letters. If you are right, you win. But if you are wrong, you are out of the game!

THINK FAST (2 or more players/hard)

In this version of Secret Code™, you get the clues from another player, not the computer. Get out pencils and paper and choose a Captain. Before any guesses are entered, the Captain presses the Show Me key, then writes down that secret code. Make sure no other player sees it! Each time a player makes a guess on his paper, the Captain must give the correct number clues. First to find the code wins! Take turns being the Captain.

TEAM UP (4 or more players/hard)

Each player is responsible for certain letters and must decide where those letters belong in each guess. For example, in a Level 1 game with two players on a team, one player is responsible for A & B and one player for C & D. Players must work together to decide where the letters should be placed. When you come up with a guess, each player presses the key he is responsible for.

PATTERNS

In this game, you will try to get as many points as possible by identifying and continuing a repeating sequence of different shapes. Before you learn how to play this game, you need to first learn a little bit about repeating sequences.

WHAT IS A REPEATING SEQUENCE?

Let's look at some examples.

EXAMPLE:
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 . . .

This "string" of numbers starts at the left with 1 and continues, or keeps on going, as long as you like. (That's what the 3 dots at the end mean.) Start with the 1 and say the numbers out loud, one at a time. Listen to how the numbers 1 2 3 4 repeat over and over again. This is a REPEATING SEQUENCE.

Here is another example:

D W X A C D W X A C D W X A C D W X A C D W X A C D W . . .

Do you know what the next letter after W should be? Say the letters out loud to find the sequence, then write them again with a slash mark between the sequences. Like this:

D W X A C / D W X A C / D W X A C / D W . . .

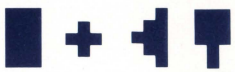
Now it is easy to see that the next letter should be "X", then "A" and "C".

A sequence can be made up of anything — letters, numbers, pictures, objects. One individual member of a sequence is called an ELEMENT. The letter "D" is an element of the sequence D W X A C.

What is the next element in this sequence? —
 # $ % # $ % # $ % # $ % # . . .

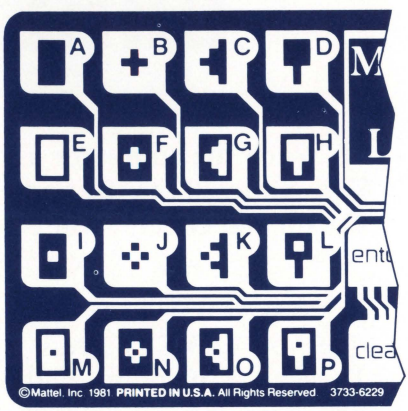
The answer is "$". Do you know why?

SYMBOLS IN PATTERNS



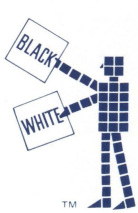
All of the repeating sequences in PATTERNS will be made up of these four shapes, called SYMBOLS — and some different variations of them.

Look at the left side of your keyboard overlay. There are 16 keys with the four symbols printed in four different ways.



These are the **only** keys you will use when you play a game of PATTERNS. Look at them carefully. In the top row, you see the four basic symbols — the rectangle ▮, cross ✚, triangle ◀ and paddle ▼. These symbols are BLACK against a white background.

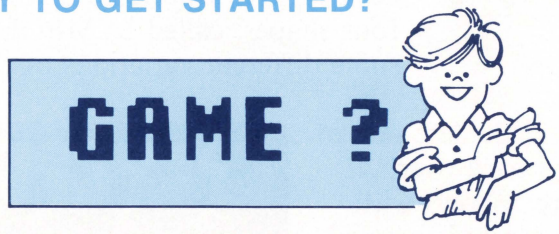
The second row repeats the very same symbols, but they are WHITE against a black background.



"Photographers and mathematicians might call the symbols in the top row **positive** and those in the second row **negative.** Artists and musicians might use the words **figure** and **ground** to describe the same two rows. We will simply call the top row of symbols BLACK and the second row WHITE."

Now let's look at the third and fourth rows. The third row is just like the first row, but there is a white square (we will call it a DOT) in the center of each symbol. Let's name this row BLACK - DOT. What will we call the fourth row? That's right! It is WHITE -DOT. These different ways of showing the same basic symbol are called VARIATIONS.

READY TO GET STARTED?



1. When the computer asks **GAME?** press the patterns key. You will see the game title, then Cursor the Great™ will erase it.

2. Next you will see the question **LEVEL?** Press 1 (easy), 2 (medium) and 3 (hard) on the LEVEL keys.

3. The computer will then ask **1 OR 2 PLAYERS?** Press the 1 or the 2 on the PLAYERS? keys. Press 1 if you are playing alone, 2 if you are playing with someone else.

4. After you pick the number of players, the game will start.

5. If you want to change games after you select PATTERNS, just press either the SECRET CODE™ or the MEMORY MATCH™ key. If you want to play PATTERNS, but at a different level or with a different number of players, press the PATTERNS key again and start over. You can do this any time, even in the middle of a game.

GENERAL GAME PLAY RULES

1. When the game starts, the computer prints a repeating sequence of 8 symbols on the top line of the screen. After you figure out the repeating sequence, use the 16 SYMBOL keys to continue that sequence on the bottom line. Decide which symbol comes next in the sequence, then press that SYMBOL key.

2. If you press the key with the correct symbol, you will hear a SHORT, HIGH BEEP and that symbol will appear on the screen. You just got **3 POINTS.**

3. If you press the wrong key, you will hear a LONG, LOW BUZZ and no symbol will appear.

- In a 1-PLAYER game, you get another chance. If you press the correct symbol on your second chance, you will hear the BEEP, the symbol will appear on the screen, and you will get **1 POINT.**

  If you press the wrong key on your second chance, you will hear the BUZZ again and the correct symbol will appear on the screen. You get **NO POINTS.**

- In a 2-PLAYER game, your turn is over. Your opponent now gets a chance to figure out the correct symbol. If both players get it wrong, the computer prints the correct symbol.

"After each correct symbol appears on the screen, wait until you hear the 2-NOTE PROMPT before you press the next key. If you press a key before you hear the prompt, nothing will happen."

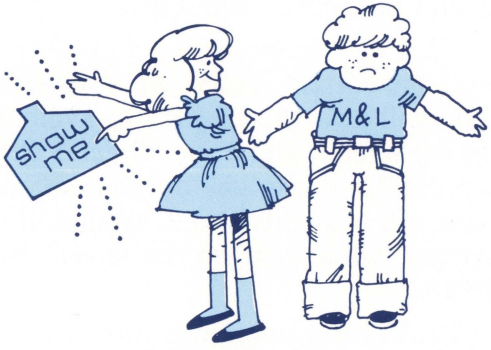
4. Try to move quickly. If you wait longer than 1 MINUTE to press a key, you will hear the BUZZ and the computer will count the delay as a wrong answer.

5. When you fill the entire bottom row on the screen (8 symbols), you have completed 1 ROUND. There are 4 ROUNDS in a game. At the end of the first 3 rounds, the computer clears the screen and prints the next repeating sequence on the top line. Repeating sequences in each game are usually different.

At the end of the fourth round, the screen clears and you see your score for the game.

SHOW ME key

If you cannot figure out a sequence and want to go on to the next one, press the SHOW ME key. The computer will print the answers to that sequence on the bottom line, then clear the screen and go on to the next round. Of course, you will not receive any points for answers that the computer gives you.



How Hard Is A Sequence?

If you get all of the symbols in a sequence correct, you may find that your next sequence is a little more difficult. The computer automatically adjusts the game to fit your skill level.

Game Over

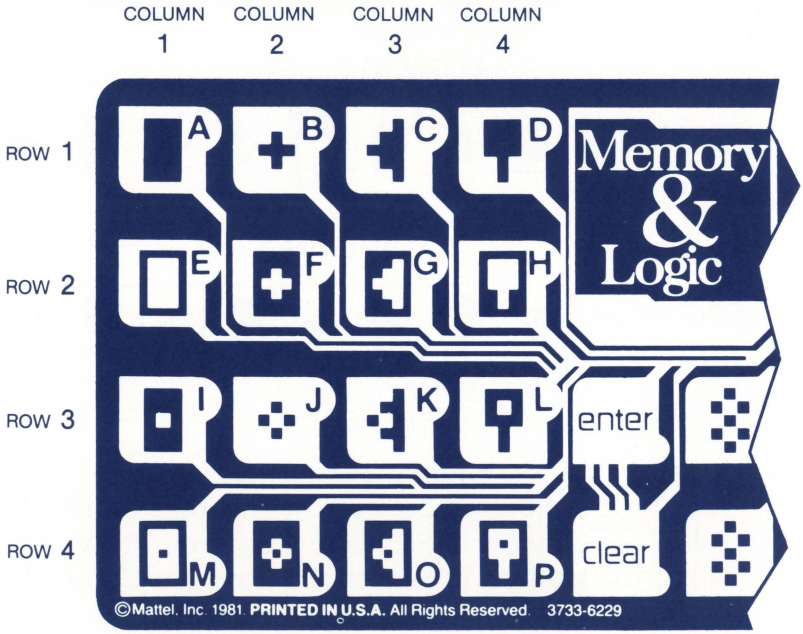
After the computer shows you your score, it will ask the question **GAME?** If you want to play PATTERNS again at the same level and with the same number of players, press the SAME GAME key.

If you want to play PATTERNS a different way or you want to play a different game, press one of the GAME keys.

1-PLAYER GAME — LEVEL 1

When the game starts, the computer will print a SIMPLE REPEATING SEQUENCE on the top line of the screen. There will be 8 symbols in the sequence.

Take a moment to look at the 16 symbol keys on your overlay again. Look down the columns of symbols as well as across the rows. Notice that each column (up and down) contains the same symbol, but with different variations.



Each row (across) contains the same variation, but with different symbols.

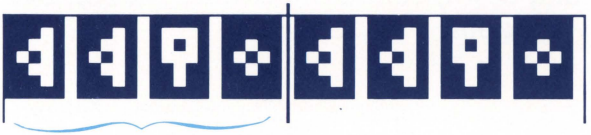
The repeating sequences in a LEVEL 1 game will always use 8 symbols from either the same column or from the same row. (That's why they are called SIMPLE repeating sequences.)

Here are some examples of simple repeating sequences you might find in a LEVEL 1 game of PATTERNS.

SEQUENCE 1

3 ELEMENTS

SEQUENCE 2



4 ELEMENTS

SEQUENCE 3

5 ELEMENTS

SEQUENCE 4

5 ELEMENTS

What do you see about the sequences above?

All of the symbols in Sequence 1 are from COLUMN 1.

All of the symbols in Sequence 2 are from ROW 4.

All of the symbols in Sequence 3 are from COLUMN 3.

From which column or row do the symbols in Sequence 4 come?

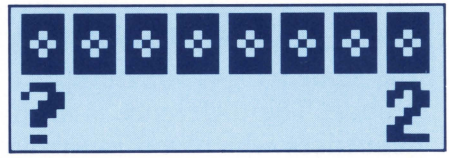
Some sequences in a LEVEL 1 game will have as few as three different elements. (Though on very rare occasions, you may get a sequence with only one element, repeated over and over.) Other sequences will have as many as five elements. There are three elements in Sequence 1 above. There are four elements in Sequence 2. Notice that two of the elements in Sequence 2 are the same symbol.

After you figure out the repeating sequence on the top line of the screen, continue the sequence on the bottom line. Decide which symbol comes next in the sequence, then press that SYMBOL key.

EXAMPLE: In Sequence 1 (shown on page 44), the next symbol needed to continue the sequence is . In Sequence 2, the next symbol needed is .

Follow the General Game Play Rules, pages 41 to 42, until you complete all four rounds of the game, and see your final score. Maximum score for a 1-Player game is **96 POINTS.**

2-PLAYER GAME — LEVEL 1



Decide before you play who will be Player 1 and who will be Player 2. A **1** or a **2** in the lower right-hand corner of the screen will always tell you whose turn it is.

Play this like the 1-Player game, but remember that each player gets only ONE chance per turn to add the correct symbol to the sequence. Once a player presses any symbol key, his or her turn is over. If correct, that symbol is printed on the screen and that player gets 3 points. If he presses the **wrong** key, his opponent gets a chance to figure out the correct symbol. If both players get it wrong, the computer prints the correct symbol.

"When the bottom line of the screen has been filled all the way up to the player number, you must still add one more symbol. The computer will then remove the player number and replace it with the last (correct) symbol in the sequence."

Players take turns through an entire game of four rounds. If Player 1 took the last turn on a round, Player 2 will start the next round.

Players get **3 POINTS** for each correct symbol. Since there are no second chances, there is NO 1-POINT score. The only way in which a player can score the maximum of 96 points in a 2-player game is if his opponent presses the wrong key on EVERY turn.

If either player presses the SHOW ME key during a round, the computer will print the remaining symbols for that round. Neither player will score any points for the symbols which the computer printed.

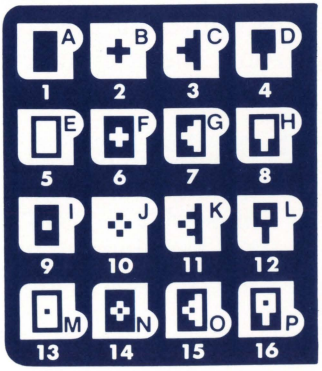
At the end of a game (4 rounds), both players' scores appear on the screen.

HARDER PATTERNS (LEVELS 2 and 3)

Game play for Levels 2 and 3 of PATTERNS is exactly the same as it is for Level 1 . . . for both 1 and 2-Player games. The difference is in the kinds of repeating sequences which you must recognize and continue. In Level 1, the computer gave you SIMPLE REPEATING SEQUENCES. Now you will be dealing with COMPOUND REPEATING SEQUENCES.

To understand compound repeating sequences, let's look at our 16 SYMBOL KEYS again. There are THREE things we can say about each symbol when we describe it.

1. Its shape (rectangle, cross, triangle or paddle).
2. Its color (black or white).
3. Whether or not it has a dot in the center (dot/no dot).



These three ways of describing a symbol are called PARAMETERS (pronounced puh-RAM-eh-ter).

Look at Symbol #6 in the illustration on page 46. We can describe it as CROSS/WHITE/NO DOT. Those are its three parameters. Symbol #9 is RECTANGLE/BLACK/DOT.

To make things easier later on, let's abbreviate (shorten) the words for our parameters even more.

SHAPE	COLOR	DOT / NO DOT
R = RECTANGLE	B = BLACK	D = DOT
C = CROSS	W = WHITE	ND = NO DOT
T = TRIANGLE		
P = PADDLE		

So if we say C/B/ND, you know we mean CROSS/BLACK/NO DOT.

Let's make three SIMPLE REPEATING SEQUENCES. Each deals with only one parameter.

SEQUENCE 1
(SHAPE): R C T P / R C T P / R C T P /

SEQUENCE 2
(COLOR): W W W W W W W W W W W W

SEQUENCE 3
(DOT/NO DOT): D ND ND / D ND ND / D ND ND / D ND ND /

Now for the tricky part. You can put these three simple repeating sequences **together** and make what is called a COMPOUND REPEATING SEQUENCE. Here is how.

Look at the three simple repeating sequences again. This time, instead of reading them **ACROSS** the page, read them vertically **DOWN** the page.

- Take the first element of Sequence 1, the first element of Sequence 2 and the first element of Sequence 3. Read them down and put them together.

SEQUENCE 1: (R) C T P / . . .

SEQUENCE 2: (W) W W W / . . .

SEQUENCE 3: (D) ND ND / D . . .

What you get is R/W/D. Remember from our abbreviations that this stands for RECTANGLE/WHITE/DOT. These are the parameters for one of the symbols. It looks like this:

- Now take the second element from each simple repeating sequence.

SEQUENCE 1: R (C) T P / . . .

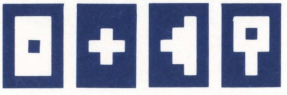
SEQUENCE 2: W (W) W W . . .

SEQUENCE 3: D (ND) ND / D . . .

This time you get the symbol C/W/ND or CROSS/WHITE/NO DOT. It looks like this:

Keep doing this with the third, fourth, fifth elements . . . and so on, until you get through the entire sequence. What you end up with is a COMPOUND REPEATING SEQUENCE, that is abbreviated like this:

R/W/D C/W/ND T/W/ND P/W/D . . .

And looks like this: 

If this is still a little hard to understand, ask a parent or teacher to explain compound repeating sequences to you.

TAKE IT BACKWARDS

Once you understand how to **make** a compound repeating sequence, the next step is learning how to **start** with a compound sequence and **break it down** into the simple repeating sequences from which it is made.

Here is a COMPOUND REPEATING SEQUENCE like the ones you may find in a Level 2 game of Patterns.

1 2 3 4 5 6 7 8 9

Look at this sequence, element by element. Start with the one marked 1. What can we say about this element? It is a RECTANGLE. It is BLACK. And it has a DOT. Let's abbreviate these parameters and write them under the element, like this:

R
B
D

Now do the same with the second element. You get:

R
W
D

Break down all of the elements in this compound repeating sequence and write the abbreviations for their parameters (shape, color, dot/no dot) below them. When you are done, it will look like this:

ROW 1	R	R	R	R	R	R	R	R	R	.	. .
ROW 2	B	W	W	B	B	W	W	B	B	.	. .
ROW 3	D	D	ND	D	D	ND	D	D	ND	.	. .

Now read ACROSS each row in the picture above. What do you see? Correct! You see three rows and each row is a simple repeating sequence. From this point, it is not hard to figure out the next element in the compound repeating sequence.

Just figure out the next element in each simple sequence, then put them together.

In Row 1, all of the elements are R (rectangle), so the next element should also be R.

In Row 2, the repeating sequence is B W W B / B W W B / B . . . so the next element should be W.

In Row 3, the repeating sequence is D D ND / D D ND / so the next element should be D.

Now put all three next elements together and you get R/W/D — the next element in the COMPOUND REPEATING SEQUENCE. It looks like this:

Remember that when you figure out the next element in a COMPOUND REPEATING SEQUENCE, you must:

1. Break the compound sequence down into simple sequences.

2. Figure out the next element in each simple sequence.
3. Put all three next elements together to make one symbol. This is the next element in the compound sequence.

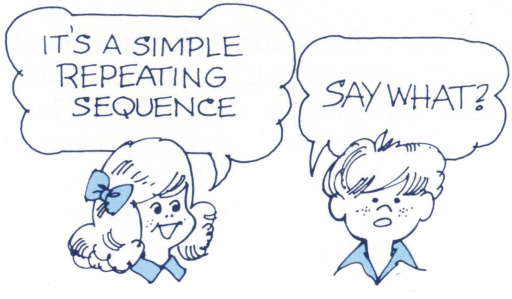
You may want to practice figuring out compound sequences on paper first. Later you will be able to figure them out in your head. It's a real challenge. Don't get discouraged if it takes a while to get the hang of compound repeating sequences.

BACK TO THE GAME

In both LEVEL 2 and LEVEL 3 games of PATTERNS, you need to identify and continue COMPOUND REPEATING SEQUENCES. There is only one difference between the two levels.

On LEVEL 2, **one** of the parameters will stay the same throughout the sequence. In our example of a compound repeating sequence on page 48, the color parameter stayed the same. All of the elements are WHITE. In our example on page 50, the shape parameter stayed the same. All of the elements are RECTANGLES.

Which parameter stays the same will vary from sequence to sequence. Once in a while, TWO parameters will stay the same. In that case, you will have a simple repeating sequence instead of a compound repeating sequence. Do you know why?



LEVEL 3 is the hardest PATTERNS game of all because ALL THREE PARAMETERS CAN CHANGE. In addition, the length of a sequence will be different for each parameter. So you will really have to pay attention to score high on this one!

EXAMPLE:

ROW 1	R	C	T	P	R	C	T	P
ROW 2	W	B	W	W	B	W	W	B
ROW 3	D	ND	ND	D	D	D	ND	ND

In the example above, the shape parameter (Row 1) has 4 elements in the sequence before it repeats. They are R C T P.

The color parameter (Row 2) has 3 elements in the sequence before it repeats. They are W B W.

The dot/no dot parameter has 5 elements in the sequence before it repeats. They are D ND ND D D.

GAME PLANS FOR 1 PLAYER (Patterns)

AROUND-THE-HOUSE PATTERNS

(1 player/easy)

This is a good rainy day activity. Look around the house and think of your everyday activities. Can you find any repeating sequences in these areas? How about Breakfast-Lunch-Dinner? That's certainly a repeating sequence. How about the kinds of food you eat? Or the television programs you watch? Or the homework you do? Once you start looking for repeating patterns, you will find that life is full of them!

WORD PATTERNS (1 player/medium)

Here is another way to make up your own repeating sequences. Make up 3 lists of words. The first list should contain only adjectives; the second list, only nouns; the third list, only verbs. Here are sample lists. Use them if you have trouble making up your own.

ADJECTIVES	NOUNS	VERBS
Brown	Dog	Runs
Big	Cloud	Floats
Happy	Boy	Skates
Small	Girl	Waits
Light	Rain	Falls

Now use the words in combination to make simple and compound repeating sequences. Here are some examples:

Simple repeating sequence:

dog boy rain dog boy rain dog boy rain . . .
big small small big small small big small small . . .

Compound repeating sequence:

brown dog brown cloud big cloud big dog
brown cloud brown cloud . . .

big dog waits big boy runs small cloud waits big cloud runs
big dog runs small boy waits big cloud runs big cloud waits . . .

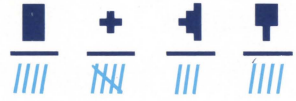
Now make up your own sequences. For extra fun, give them to a friend and see if he or she can figure them out. Be creative. You will come up with silly sequences that are loads of repeating fun.

COUNT 'EM (1 player/easy)

How often do the different symbols repeat? Does one symbol repeat more often than the rest? Run your own test with this guessing game.

See the Patterns game for 1 player, LEVEL 1 or 2. Before you begin, pick the **shape** that you think will repeat most often — rectangle, cross, triangle or paddle. Don't worry about variations like color or dot. Just pick a basic shape.

Then play the game, keeping track of the number of times you press each shape. Use a "score card" like the one below. Remember that all variations of a shape count as that shape when you are keeping track. So if you press , draw a stroke under the .

Example of game score keeping: 

At the end of a game, count the strokes beneath each shape. If you correctly guessed which shape appears most often, add 10 points to your game score. If you guessed incorrectly, subtract 5 points from your game score.

HARDER COUNT 'EM (1 player/hard)

Play this game the same as COUNT 'EM, but set the game level for LEVEL 3. For the hardest game of all, pick only 1 of the 16 possible symbols. Remember, the symbol is the combination of shape, color, dot/no dot. Now you must get the exact symbol variation (for example,) in order to get one stroke. If you guess the symbol that appears most often, add 20 bonus points to your overall score.

FASTER AND FASTER (1 player/medium)

How fast can you play Patterns? Begin with LEVEL 1. Play 5 games and time yourself on each game. Use a clock or watch with a second hand. Try to play each new game faster than the last.

At the end of each game, write down your score and time for that game. Here is an example:

GAME (Level 1)	SCORE	TIME
1	96	2 minutes
2	94	1 minute 55 seconds
3	92	1 minute 30 seconds
4	92	1 minute 25 seconds
5	88	1 minute 20 seconds
TOTAL TIME		8 minutes 10 seconds

For a harder game, try this at LEVELS 2 and 3. What happens to your time as the game level gets higher?

BEAT TIME AND SCORE (1 player/hard)

First play FASTER AND FASTER and get the hang of that game. BEAT TIME AND SCORE is played exactly the same as FASTER AND FASTER, only you must start at LEVEL 2. Keep your time and score for 5 games. This time, you must not only try to beat your time, but also keep your score as high as or higher than your Game 1 score.

So, at the end of 5 games, go back and check your scores on each game. If a score is THE SAME as your Game 1 score, do not change your time on that game.

If your score is HIGHER than your Game 1 score, subtract 5 seconds from your time for each point over your Game 1 score. If your score is LOWER than your Game 1 score, add 5 seconds to your time, for each point under your Game 1 score.

At the end of all 5 games, total all your times. Remember to add or subtract seconds for scores that are over or under your Game 1 score. See how LOW of a time score you can get.

HALF-TIME PATTERNS FOR ONE

(1 player/hard)

You will need a clock with a second hand to play this game. Set the game for 1-Player, LEVEL 2 or 3. The object is to press the correct symbol key in HALF the amount of time you normally have. Since you normally get 1 minute to figure out the correct symbol, you will now have 30 seconds. If you press the correct symbol key within 30 seconds, you get double your score for that symbol. (If you get the correct symbol on your first try, you get 6 points instead of 3. If you get the correct symbol on your second try, you get 2 points instead of 1.) If you get the correct symbol AFTER 30 seconds, but within the regular 1 minute time period, you get the regular number of points.

You may need a little help from a friend or parent to keep time and tell you when 30 seconds are up. Or see if you can find your own way of telling when time is up.

GAME PLANS FOR 2 OR MORE PLAYERS

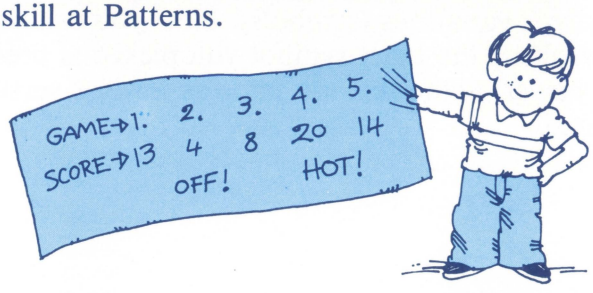
A WORD ABOUT HANDICAPS

In games, a HANDICAP is a way of giving players of different abilities an equal chance to win. This can make the game a lot more fun for everyone. YOU decide when to use handicaps in a game. In PATTERNS, you can do this by giving the less experienced players a certain number of "starting points". You decide how many points is fair, depending on each player's skill at the game. Here are some suggestions. If a player has played Patterns often and is very good, even at Level 3, give NO starting points. If a player is skillful at Levels 1 and 2, but not at Level 3, give 5 starting points. If a player is just beginning to learn the game, allow 10 starting points. Starting points are added to a player's final game score.

MARATHON PATTERNS (2 players/easy)

Choose any level for this game. Then play 5 games and write down each player's score for each game. When you have finished all 5 games, add up each player's scores. The highest total wins.

This way of scoring is a better test of each player's ability than playing only one game. Anyone might have an "off" game, where they don't play very well . . . or a "hot" game, where they play much better than usual. Keeping score over 5 games will usually even out these high and low games, and give a truer picture of your real skill at Patterns.



2-PLAYER COUNT 'EM (2 players/medium)

This game is played just like 1-Player Count 'Em, with a couple of small differences.

Select a 2-player, LEVEL 2 game. Each player picks the shape he or she thinks will be repeated during the game most often. Players must pick different shapes. Now play a regular 2-player game of Patterns, but keep track of the number of times **each** shape (not just the one you picked) is pressed during the game by either player. (Wrong guesses don't count.) At the end of the game, add up the strokes under each shape. The player with the most strokes under the shape he or she picked adds 5 points to his game score. In addition, if a player picked the shape with the most strokes out of all 4 basic shapes (rectangle, cross, triangle, paddle), he gets a special bonus of 10 extra points. High score wins.

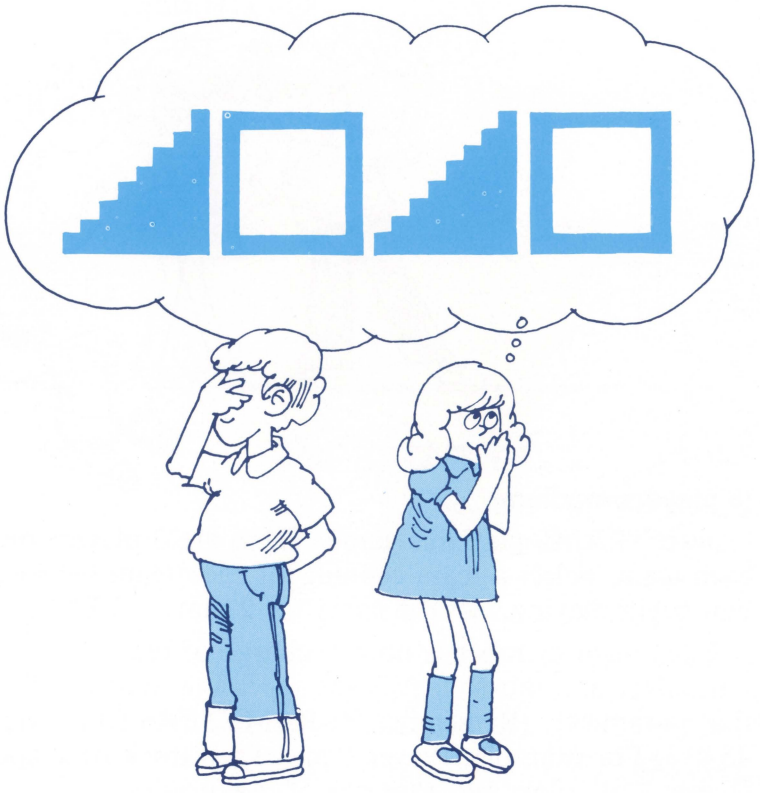
Here is an example:

Player 1 picked the triangle. Player 2 picked the cross.

	RECTANGLE	CROSS	TRIANGLE	PADDLE
NUMBER OF TIMES EACH SHAPE WAS REPEATED	𝍸	𝍸 ///	𝍸	𝍸 ////

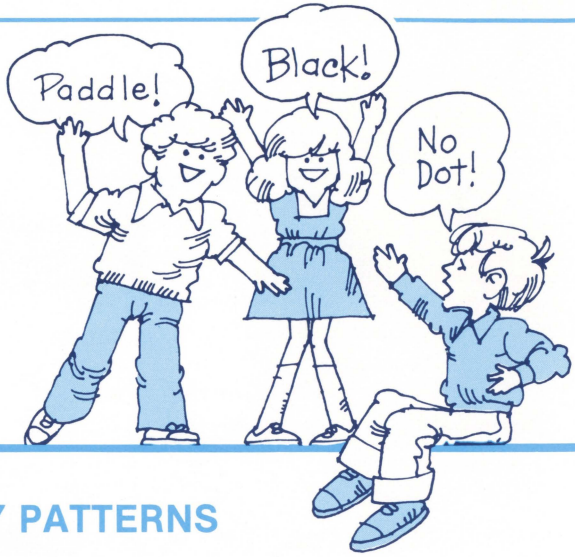
Player 1 gets 5 points because the triangle repeated more times than Player 2's cross. In addition, Player 1 gets the 10 point bonus because the triangle repeated more times than **any** shape.

FOR HARDER VERSIONS of this game, play at LEVEL 3 and let each player pick only 1 of all 16 possible shape variations (symbols). Now you can only count a stroke if the exact symbol you picked is pressed by either player. Score this the same as Level 2 version of this game.



ARTSY PATTERNS (2 players/medium)

Do you have the DISCOVERIES IN™ ART learning fun module? If you do, use it in Quik Pix™ mode to create a repeating sequence of 16 shapes, then play this game with a friend. Tell your friend to look away while you secretly put in a repeating sequence of 4 shapes that repeat 4 times. Then press GO QUIK PIX key to erase the sequence. Now tell your friend to look, while you press GO QUIK PIX key **again**. The computer will show your entire sequence. See if your friend can figure it out. If you want to keep score, allow 10 points for each sequence that is correctly identified.



TRIPLE RELAY PATTERNS

(6 players/medium)

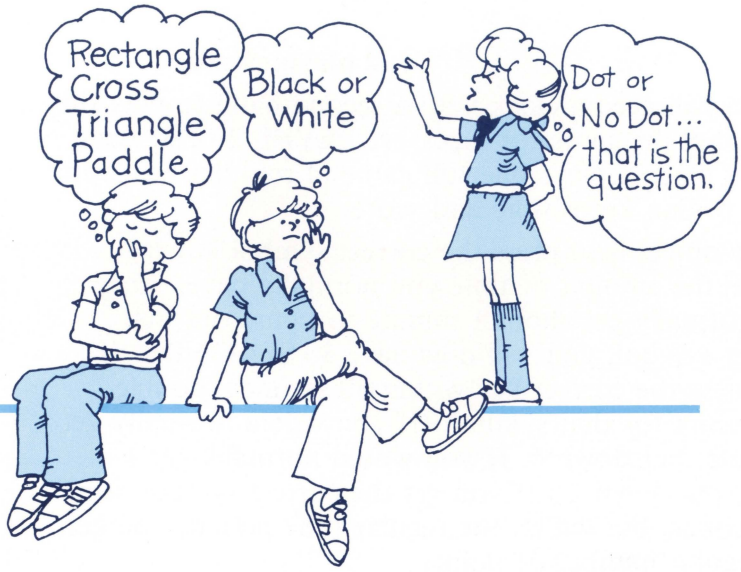
Two TEAMS play this game. There are 3 players on each team. Select a team captain for each team before you begin playing. Set the game for 2 players LEVEL 3.

Each team member is now in charge of one parameter and must identify the repeating sequence for that parameter. (Remember PARAMETERS from page 46-47?) For example, Player 1 may keep track of shape, Player 2 of color, and Player 3 of dot/no dot.

When it is your team's turn, each player on your team calls out what the next symbol should be within his or her parameter. For example: Player 1 might call out "paddle" as the shape; Player 2 might call out "black" as the color; and Player 3 might call out "no dot" as the third parameter. The symbol to be pressed by the team captain would then be paddle/black/no dot.

Score this game as you would any 2-player game, only the final scores shown for Player 1 and Player 2 are the scores for Team 1 and Team 2.

This game requires real cooperation among team members.



DOUBLE-RELAY PATTERNS

(4 players/hard)

Again, 2 TEAMS play this game, but each team has only 2 players. Select a team captain for each team. Set the game for 2 players, LEVEL 2.

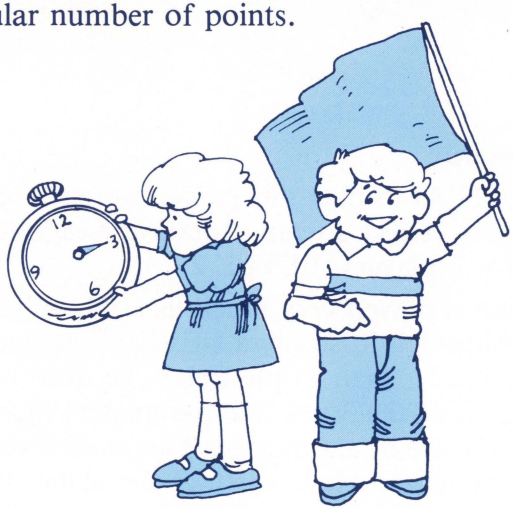
This game is played very much like Triple Relay Patterns. Although it is only a LEVEL 2 game, it can actually be harder than Triple Relay, because you never know which 2 of the 3 possible parameters the computer will use in a sequence. This means you cannot assign parameters to players before the game starts. The team captain should be your best player for this game, because he or she will have to quickly figure out which 2 parameters are changing in each sequence, then assign these 2 parameters — one to him or herself and the other to the second team member.

Play and score this game as you did Triple Relay Patterns.

HALF-TIME PATTERNS (2 players/hard)

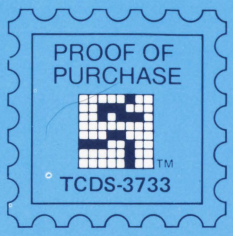
You will need a clock with a second hand to play this game. Set the game for 1 player, LEVEL 2 or 3. Each person playing plays one full game (4 rounds), while the other person keeps time and score.

The object is to press the correct symbol key in HALF the amount of time you normally have. Since you normally get about 1 minute to figure out the correct symbol, you will now have 30 SECONDS. If you press the correct key within 30 seconds, double your score for that symbol. (If you would normally get 3 points, put down 6. If you would normally get 1 point, put down 2.) If you get the correct symbol **after** 30 seconds, but within the regular time period, you get the regular number of points.



The time and score keeper should watch the clock and tell you when the 30 seconds for each symbol are up. He or she should also keep track of your score on each symbol key you press. At the end of a game, add up your total score. Now you keep time and score while your friend plays HALF-TIME PATTERNS. Highest score wins.

NOTES



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